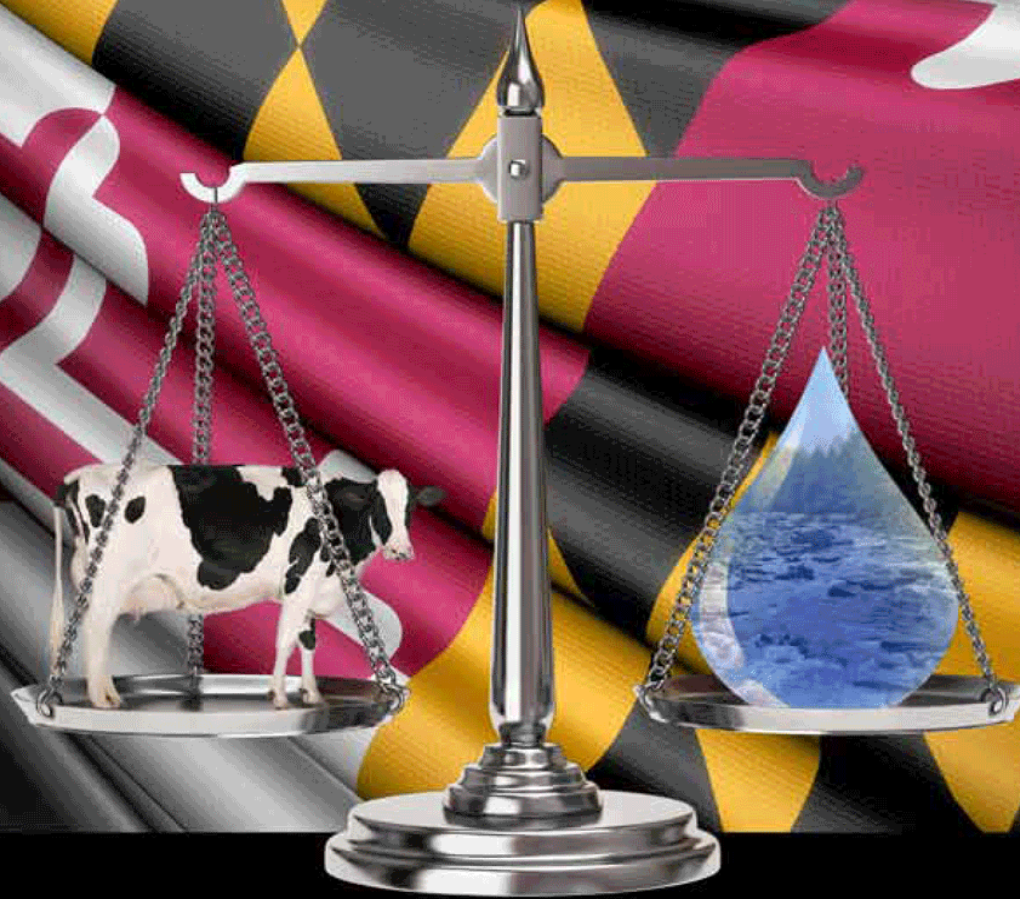




Proposed Changes to Maryland's Nutrient Management Regulations



A BALANCED APPROACH

May 8, 2012

All Things Considered

- In crafting nutrient management regulations, Maryland has considered recommendations of the science panel as well as concerns raised by environmental, agricultural and municipal stakeholders.
- These regulations strike a balance between maximizing water quality benefits and practical needs of implementing requirements in the field and assuring economic impacts are manageable.
- When taken as a whole, these regulations will advance agricultural water quality management far beyond any efforts existing in other jurisdictions.

Nutrient Management Regulations

Process Objectives

- Hear key concerns from key stakeholder groups: agriculture, environment, municipal.
- BayStat Science Panel review of original proposal
- Revise original proposal, balancing
 - Science
 - Environmental objectives
 - Practical realities

Nutrient Management Regulations

Prior Policy Modifications

- Setback provisions clarified to:
 - exclude ephemeral streams
 - allow winter grazing of livestock
- Soil Incorporation requirements adjusted to:
 - provide exception for hay and pastures acres
 - provide exception for highly erodible conditions
 - allow spray irrigation of nutrients on existing crops
- Add provision for residual soil nitrate testing in determining fall fertilization of small grain.

Nutrient Management Regulations

Science Panel Recommendation # 1

By 2016, prohibit application of nutrients between Nov 1 and Feb 28.

- **Original Proposal:**
 - By 2016, prohibit application of nutrients between November 15 and February 28.
- **Revised Proposal:**
 - Establish Nov 1st deadline for organics applications east of Chesapeake Bay and Nov 15th west of the Bay.
 - Revise post-2016 winter application criteria, removing perceived loop hole allowing continued application in winter.
- **Rationale:**
 - November 1st deadline is too early in light of fall harvest time line – especially in Western Md.
 - Goal has been to focus on eliminating all winter applications, continuing to allow limited fall applications.
 - Eliminating fall applications requires 12 month storage capacity.
 - Acknowledge Science Panel's recognition of economic and sustainability issues.
 - Recognizes seasonal constraints faced by farmers.

Nutrient Management Regulations

Science Panel Recommendation # 2

Require incorporation of organic nutrients by the end of the next working day.

- **Original Proposal:**
 - Organic nutrients must be incorporated within 72 hours of application.
- **Revised Proposal:**
 - Organic nutrients must be incorporated within 48 hours of application.
- **Rationale:**
 - Incorporating earlier conserves nutrients
 - Poultry litter is generally being incorporated within this time frame today as a matter of practice.

Nutrient Management Regulations

Science Panel Recommendation # 3

Ensure that intermittent streams are not excluded from setback requirements

- Original Proposal:
 - Intermittent streams are not excluded from application setbacks
- Revised Proposal:
 - Unchanged
- Rationale:
 - All perennial and intermittent streams are included in this proposal and covered by sewage sludge regulations.
 - Public Drainage Association regulations also provide setback requirements for these drainage systems.

Nutrient Management Regulations

Stakeholder Issue # 1

Restricting Fall application of nutrients based on spring crop needs

- Original Proposal:
 - Allow fall application of organic sources of nutrients in limited situations based on either needs of fall crop or spring crop, using either N or P-based criteria.
- Revised Proposal:
 - Remove conditional fall application opportunity for poultry litter
- Rationale:
 - Does not apply to poultry (litter is “stackable”, and therefore, it cannot be applied in the Fall under current regulation.)
 - Proposed regulations will reduce fall applications of N by at least 50% over current regs, using N-based criteria.
 - Proposed regulations will reduce fall applications of P to one year crop uptake, using P-based criteria.

Nutrient Management Regulations

Stakeholder Issue # 1 (cont.)

Restricting Fall application of nutrients based on spring crop needs

- Rationale (cont.):
 - Additional protection provided by proposed requirements for incorporation, cover crops and reduced application rates in the fall.
 - Limiting fall application to only fall crop needs will eliminate fall application of biosolids and manure, creating 12 month storage requirement.
 - Limited infrastructure exists to incorporate/inject 100% of material in one season.
 - Greater potential for runoff, depending on climatic conditions, when all material is required to be applied in the spring.

Nutrient Management Regulations

Stakeholder Issue # 2

New regulations should not preempt or supersede existing sewage sludge regulations

- Original Proposal:
 - Language ensured setback provisions of Concentrated Animal Feeding Operation (CAFO) permit would prevail and was silent on sewage sludge regulations.
- Revised Proposal:
 - Language added to clarify that all CAFO permit conditions apply and that more protective sewage sludge regs related to incorporation time frames and application buffers are not superseded.
- Rationale:
 - Following existing permitting authority within MDE

Nutrient Management Regulations

Stakeholder Issue # 3

**Application setbacks in pastures should not be
“one size fits all”**

- Original Proposal:
 - Application setbacks prohibited application of nutrients “from any source” within 10 ft setback area, creating an implied requirement to fence animals from the stream.
- Revised Proposal:
 - Allows for Soil Conservation District evaluation of the site and implementation of a plan providing alternative BMPs such as stream crossings, alternate watering facilities, pasture management, or vegetative exclusion that are equally protective of water quality.
- Rationale:
 - Provides more site-specific evaluation
 - May provide more cost-effective solutions for the farmer

Nutrient Management Regulations

Stakeholder Issue # 4

120 day field staging provision is inadequate

- Original proposal:
 - Limited temporary field staging of poultry litter for up to 120 days.
- Revised proposal:
 - Removes 120 day timeframe and focuses on siting and management requirements
 - Requires field staged material to be applied in the following spring crop season
- Rationale:
 - Supported by UDE research project, Chesapeake Research Consortium Panel of national scientists, and Center for Agro-Ecology.
 - Research underscores importance of correct placement and shape of staging piles rather than length of time.
 - Field staging is required for large volumes of litter resulting from “whole house clean-out” (Poultry litter storage facilities are sized to accommodate smaller volumes (crust) removed between flocks.)
 - Risk of runoff is less when staged in pile than spread in the field when crop uptake does not occur.
 - Field staging is an option only after available storage is fully utilized.

Nutrient Management Regulations

Stakeholder Issue # 5

Limiting Fall application of fertilizers on small grain crops

- Original Proposal:
 - Limit fall application of fertilizers for small grain crops, depending on soil test to evaluate residual nitrogen.
- Revised Proposal:
 - Unchanged
- Rationale:
 - Four years of UMD field research replicated in 3 locations across MD
 - Demonstrates fall fertilizer is not cost effective in increasing yields

Nutrient Management Regulations

Stakeholder Issue # 6

Impacts of winter application ban on small towns and small farms

- Original Proposal:
 - Established a 2016 deadline after which no organic sources of nutrients would be applied between Nov 15 and Feb 28
- Revised Proposal:
 - For small towns (less than .5 MGD Wastewater Treatment Plant (WWTP) flow and small farms (less than 50 animal units), deadline is pushed out to 2020.
- Rationale:
 - Small number of affected WWTP applying sewage sludge to agricultural land over the last 3 years
 - More funding committed to Ag BMPs - \$2M additional funds through 2010 Trust Fund.

Timeline

- Brief stakeholder group today (5/8/12)
- Brief NMAC 5/10/12
- Submit revised package to AELR mid-May
- Publish in MD Register – early June
- 45 day public comment – mid June to July 31